

# Processing Recommendations for DIC-PPS

## Injection Molding Guidelines



The below indicated parameters can be considered as starting points for the injection process of the different DIC-PPS grades, however, these parameters need to be adopted depending on the part size and the geometry. Prior to the processing, a drying of the material is recommended using a dryer system capable of maintaining a dew point of < -30°C.

Please refer to the official DIC-PPS Material Safety Data Sheet for safety precautions prior to use.

DIC-PPS		FZ-1140 FZ-2140	FZ-3600 FZ-6600	Z-230, Z-240 FZ-820	FZL-4033	FZ-8600	Z-200-E5
Processing Parameter	Unit	GF	GF / Mineral	Super Tough	PTFE modified	Reflector-Type	Unreinforced
Melt Temperature	°C	300-330	310-340	300-330	300-330	320-340	300-320
Cylinder Temperature							
Zone 1 (Feeding)	°C	290-300	290-300	290-300	290-300	290-300	290-300
Zone 2	°C	290-320	300-330	290-310	290-320	310-330	290-310
Zone 3 (Nozzle)	°C	290-320	300-330	290-310	290-320	310-330	290-310
Nozzle	°C	290-320	300-330	290-310	290-320	310-330	290-310
Mold Temperature	°C	130-150	130-150	130-150	130-150	140-150	130-150
Injection Speed	mm/s	50-100	50-100	80-150	50-100	60-120	30-30
Injection Pressure	MPa	80-120	80-120	80-120	80-120	80-120	80-120
Holding Pressure	MPa	30-60	30-60	30-60	30-60	30-60	30-60
Holding Time	s/mm	3-4	2-3	4-5	3-4	2-3	7-15
Back Pressure	MPa	0,5-2	0,5-2	0,5-2	0,5-2	0,5-2	0,5-2
Screw Speed	m/s (U/min)	<0,3 (150)	<0,3 (150)	<0,3 (150)	<0,3 (150)	<0,3 (150)	<0,3 (150)
Drying Temperature	°C	130	130	130	130	130	130
Drying Time	Hours	3-5	3-5	3-5	3-5	3-5	3-5

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## Troubleshooting Guide



Procedure: Apply the remedies in numerical order ↑ Increase ↓ Decrease ↕ Increase or Decrease	Cylinder Temperature	Nozzle Temperature	Mold Temperature	Injection Pressure	Injection Speed	Holding Pressure	Holding Time	Cooling Time	Shot Weight (Volume)	Screw Speed	Back Pressure	Cushion	Gate Size / Sprue Diameter	Change Gate Position	Venting	Clean, Polish, Coat the mold	Clamping Force	Drying of the material	Insulate Nozzle	Others	
	Short Shot	↑ 5		↑ 7	↑ 4	↑ 3	↑ 6			↑ 1			↓ 2	↑ 8		↑ 9		↓ 10			11
Flash			↓ 4		↓ 1	↓ 3						↑ 2	↓ 7		↓ 6		↑ 8				
Over Packed				↓ 2	↓ 5	↓ 3			↓ 1			↑ 4									
Gate Blocked	↑ 4	↑ 3	↑ 5										↑ 6						2	1	Clean up the Gate
Drooling	↓ 5	↓ 1									↓ 6							↑ 4	3	2	Decompression of Screw
Flow Marks	↑ 4		↑ 3	↑ 2	↑ 1	↑ 5					↑ 6										
Visible Weld Lines	↑ 4		↑ 1		↕ 2	↑ 3								6	↑ 5						
Sink Marks, Voids	↓ 6		↑ 5		↓ 3	↑ 2	↑ 1	↑ 8				↓ 7	↑ 4								
Burn Marks	↓ 3			↓ 2	↓ 2	↓ 7					↑ 5			6	↑ 1	8	↓ 9	↑ 4			
Warpage	↕ 6				↑ 2	↓ 4	↓ 3	↑ 5												1	Homogeneous Temp. Profile
Sprue Sticks, Breaks off		↑ 5	↓ 7	↓ 6		↓ 4		↑ 3								2				1	Increase Draft Angle / Change switching point
Ejection Problems	↓ 6		↓ 5	↓ 2		↓ 4		↑ 3								1				8	Increase Draft Angle / Change switching point
Deposit on the Mold	↓ 4		↓ 7		↓ 5						↑ 6				↑ 2	1		↑ 3			
Bad Surface Quality	↑ 4		↑ 3		↑ 1	↑ 2									↑ 6	5					
Inconsistent Feeding	↕ 4									↕ 3	↕ 2							↑ 1			
Brittle Parts	↑ 6		↑ 7	↑ 5	↕ 4	↑ 1	↑ 2						↑ 5							3	Change switching point



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